

What is claimed is:

1. A power tool (10) with a housing (12) that includes a motor (20) with air cooling and a cooling-air exhaust duct (48), and a suction connecting piece (42) that guides a chip-suctioning flow, and, connected thereto, includes a dust box (50, 150) with air holes (72, 172), wherein cooling exhaust air flows out of the suction connecting piece (42) at a high rate of speed and flows around and across the dust box (50, 150) in the region of its air holes (72, 172).
2. The power tool as recited in Claim 1, wherein the cooling exhaust air is guided, separately from the dust evacuation air, out of the housing (12) to the dust box (50, 150) and further, unthrottled in particular, over its air holes (72, 172), preferably over a large surface area as in a flat duct.
3. The power tool as recited in Claim 1 or 2, wherein the dust exhaust flow is guided in the suction connecting piece (42) of the housing (12) such that it is sealed off, in particular by a partition (49), from the cooling exhaust-air flow.
4. The power tool as recited in Claims 1 through 3, wherein the dust box (50, 150) supports an air-tight hood (66) in parallel with but at a distance from the outer wall (62, 162) with the air holes (72, 172), the hood including an air outlet opening (70) in its back end.
5. The power tool as recited in Claims 1 through 5, wherein the horizontally longitudinally-divided suction connecting piece (42) has an inlet opening of the cooling exhaust-air duct (48), located radially outwardly and on the top, that is guided in the top part of the suction connecting piece (42).

- 1 6. The power tool as recited in Claim 1,
2 wherein the dust box (50, 150) includes a coupling branch (52, 152) for
3 connection with the suction connecting piece (42) of the power tool (10),
4 the cooling air duct (54, 154) of which is capable of being coupled with the
5 cooling exhaust-air duct (48) of the suction connecting piece (42).
6
- 7 7. The power tool as recited in Claim 1,
8 wherein the dust box (50, 150) is provided with a base (60, 160) capable
9 of being detached in the manner of a cover.
10
- 11 8. The power tool as recited in Claim 1,
12 wherein the dust box (50) includes a top wall (62) capable of being
13 detached in the manner of a cover, the top wall carrying the pleated filter
14 (64).
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- 16 9. The power tool as recited in Claim 1,
17 wherein the cooling exhaust-air duct (44, 46) is connected with the suction
18 duct (40, 42) via a connecting duct (46).
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- 20 10. The power tool as recited in Claim 1 or 2,
21 wherein the cooling exhaust-air duct (44) is enlarged in the manner of a
22 funnel in the outflow direction and, at its largest cross section, leads into
23 the suction duct (40, 42).
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